Sell-out success in the U.S. First time in Australia & N.Z.

An essential briefing for Corporate and Government Managers

Understanding the

Telecommunications Revolution

An intensive overview of telecommunications systems and networks, technologies, products, services, applications and regulation

DAY ONE
Voice Communications: Systems and Networks

DAY TWO
Data Communications: Systems and Networks

DAY THREE
Emerging Technologies

All three days bookable separately

Winner: 1992 Education Products of the Year "Teleconnect" magazine

Presented by internationally acclaimed experts:
Lillian Goleniewski and Ray Horak, The LIDO Organization, Inc., USA

"The best instructors I have ever come across . . . thorough and articulate"
A. Salamance, University of California

"Excellent manual . . . excellent speakers . . . interesting and knowledgeable"
L. DeGagne, Office of the Auditor-General, Ontario, Canada

- Understand the critical dimensions of telecommunications
- Discover the inner workings of systems and networks
- Prepare for the next generation networks—the Broadband era
- Explore the alternatives of wireless communications
- Discover critical applications driving emerging technologies
- Control your telecommunications present and future

Organised by
IIR CONFERENCES

Canberra: 2, 3, 4, March 1994; Lakeside Hotel
Sydney: 7, 8, 9 March 1994; Hyatt Kingsgate
Brisbane: 10, 11 March 1994; Brisbane Hilton
Auckland: 14, 15, 16 March 1994; Hyatt Hotel

PROGRAMME AT A GLANCE

DAY ONE

Voice Communications: Systems and Networks

- The basics of telecommunications technologies
- Detailed explanations of specific systems and networks
- Transmission Systems:
  Twisted pair, Coaxial cable, Microwave, Satellite, Fibre optics, Cellular radio
- Voice and Telemessaging Systems:
  PABX, Key Systems, Centrex, Voice Processors, E-Mail, Facsimile
- Public & Private Networks—components, architecture and voice services

DAY TWO

Data Communications: Systems and Networks

- Fundamentals of Data communications; protocols and computer network architectures demystified: the OSI reference model
- Functions and Applications of:
  Modems
  Codecs
  Terminal adapters, Concentrators and other network components
- Data Networks:
  Dedicated
  Circuit switched
  Packet switched
  Cell switched
- LANS, MANS, WANS and their inter-relationships

DAY THREE

Emerging Technologies

- Near and distant future of telecommunications
- The next generation of networks
- Preparing for the broadband era:
  SDH/SONET, Frame Relay, ATM, B-ISDN, AINs
- The wireless world:
  Cellular radio
  Wireless office systems
  PCS/PCN
  LEOS, MEOS, GEOS
- Visual Communications: Video applications and standards, Video codecs, Video conferencing, Video networking, Multimedia, Interactive TV and Networks

ABOUT YOUR PRESENTERS

Lillian Goleniewski and **Ray Horak** are internationally acclaimed telecommunications consultants and educators who speak annually before thousands of communications professionals, worldwide. Together, they bring over 37 years of direct involvement in all major areas of the telecommunications industry. Their cumulative experience includes product design and development, marketing and sales, system/service evaluation and implementation, general management, system and network management, strategic planning and regulatory activity. In addition to acting as consultants and educators, they have held positions with manufacturers and developers, carriers, distributors, service providers and end user organisations. They have operated successfully in regulated, as well as non-regulated, environments.

Lillian Goleniewski

Ray Horak

Lillian and Ray serve as members of the Board of Referees of the Office of Technology Licensing of Stanford University, California, USA, and as members of the faculty of San Francisco State University. In addition, they are members of numerous Advisory Boards of DataPro Information Services Group, including Broadband Networking, Communications Networking Services, Data Networking, Data Networks, Managing Voice Networks, Network Management Systems and Voice Networking Systems. They have researched and authored more than 60 articles and reports on a broad range of telecommunication technologies, products and services, as well as critical management and market issues. They have developed dozens of telecommunications manuals and workbooks and are frequently quoted as subject matter experts in major industry journals.

YOU'RE IN GOOD COMPANY

Organisations that have trained with The LIDO Organisation, Inc., include:

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Stanford University
Telco Research Corporation
The State of Texas
US Department of Energy
US Treasury Department
US West Communications
Westinghouse
World Expo Corporation

Dear Executive,

Understanding the Telecommunications Revolution— an *essential* briefing for corporate and government managers

Telecommunications is the infrastructure of the Information Age, an age characterised by a knowledge-oriented society with an increasing dependence on the creation, transfer, processing and management of ever-increasing volumes of information. Telecommunications has become a virtual necessity for economic growth and a factor of great competitive importance in the global market.

Numerous studies reflect the increasing level of expenditures associated with telecommunications resources. Across all segments of the economy, telecommunications costs are now generally the second largest business expense item.

This seminar has been developed specifically to provide you with a practical, easy-to-understand update of telecommunications—the industry, the technologies and the applications. This lively fast-paced presentation offers you:

- **Plain-English** explanation of the fundamental principles and workings of telecommunications technologies and their application
- **Thorough and understandable** discussion of voice, data and visual systems and networks
- **Applications-oriented** presentation of current and emerging technologies
- **Domestic regulatory issues** set in the context of the global information infrastructure
- **Strategic positioning and tactical deployment** of telecommunications systems and networks

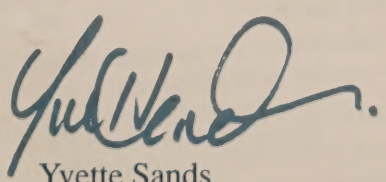
You will learn how information is created and transported, what components comprise a network, what services support which applications, what various types of networks can and cannot provide, and what impact current trends and future developments will have on the telecommunications industry into the next decade. You will also learn how the industry traditionally has been structured and how it is evolving to meet the demands of the 21st century **information infrastructure.**

Non-technical professionals will gain a complete understanding of the language of telecommunications, including technologies, systems and services. This comprehensive, high-level exposure addresses all aspects of telecommunications, as well as their inter-relationships.

Presented by internationally acclaimed experts in the field, you will enjoy a dynamic, thought-provoking presentation. Attend all three days of this essential briefing to **take control of the future of your business!**.

I look forward to seeing you there,

Kind regards,



Yvette Sands
Conference Director

Understanding the Telecommunications Revolution

DAY ONE

Voice Communications: Systems and Networks

8.15 *Registration and coffee*

9.00 **Welcome and introduction**

9.10 **Technology basics: laying the foundation**
- Transmission fundamentals
- 2-wire, 4-wire circuits
- Bandwidth
- Analogue vs digital transmission
- Amplifiers vs repeaters
- Multiplexers
- Switching systems

10.15 *Morning coffee*

10.45 **Transmission systems: characteristics and applications**
- Copper cable
- Coaxial cable
- Microwave
- Satellite
- Fibre Optics
- Cellular Radio

12.00 *Lunch*

1.30 **Voice and telemessaging systems and their integration**
- PABX
- Key telephone systems
- Centrex
- Voice processing
- Telex and TWX
- E-Mail
- Facsimile
- Videotex

3.00 *Afternoon tea*

3.20 **Traditional network services**
- The telecommunications industry
- Regulatory bodies and issues
- Traditional network service providers
- Public switched telephone network (PSTN)
- Network control signalling
- Local loop technologies
- Establishing communications channels
- Traditional PSN voice services
- Private network services

4.30 *Close of Day One*

DAY TWO

Data Communications: Systems and Networks

8.15 *Registration and coffee*

9.00 **Welcome and introduction**

9.10 **Data communications basics**
- Modems and modulation
- Simplex, half duplex, full duplex
- Coding schemes: Baudot, ASCII, EBCDIC, UNICODE
- Asynchronous vs synchronous transmission
- Error control
- Protocols
- Computer network architectures
- OSI reference model

10.15 *Morning coffee*

10.45 **Digital and data networking**
- Digital network characteristics
- Dataphone digital service
- Switched 56/64/384 kbps
- E-Carrier/T-Carrier

12.00 *Lunch*

1.30 **Digital and data networking (cont'd)**
- Packet switching
- Narrowband ISDN

Local connectivity and networking—LANs
- LAN concepts and definitions
- LAN media
- Broadband vs baseband
- LAN standards and specifications

3.00 *Afternoon tea*

3.20 **Local connectivity and networking—LANs (cont'd)**
- Access techniques
- LAN topologies
- Network operating systems
- Extended LANs
- Bridges, routers and hubs
- Internetworking

4.30 *Close of Day Two*

DAY THREE

Emerging Technologies

8.15 *Registration and coffee*

9.00 **Welcome and introduction**

9.10 **The Network Enterprise 2001**
- The Changing Environment
- The Broadband Evolution
- Driving Applications and Trends

Emerging broadband network technologies
- Synchronous digital hierarchy (SDH/SONET)
- Fast packet switching
- Frame relay

10.15 *Morning coffee*

10.45 **Emerging broadband network technologies (cont'd)**
- Cell relay
- Switched multimegabit data service (SMDS)
- Asynchronous transfer mode (ATM)
- Broadband ISDN (B-ISDN)
- Advanced intelligent networks (AINs)

Untethered networks
- Wireless/Mobile communications and computing
- Analogue and digital cellular radio
- Cordless telephony
- Wireless office systems

12.00 *Lunch*

1.30 **Untethered networks (cont'd)**
- Personal Communication Networks (PCNs)
- Personal Communication Services (PCS)
- Satellite alternatives (LEOs, MEOs, GEOs)
- Direct Broadcast Satellite (DBS)

Visual Communications
- Video applications and standards
- Video codecs
- Video conferencing
- Video networking
- Multimedia
- Interactive TV and networks

3.00 *Afternoon tea*

3.20 **Network management**
- Risk analysis and assessment
- Contingency planning
- Disaster recovery
- TeleManagement software systems: Administrative management
- Network management: Real-time monitoring and control
- Network security: an issue of paramount importance

4.30 *Close of Day Three*

An essential briefing for corporate and government managers

This unique event addresses virtually every aspect of telecommunications. Voice, data and visual systems and networks, as well as their integration, are discussed from both strategic and tactical perspectives.

12 direct benefits of attending this unique event

1 Examine the structure of the telecommunications industry—domestic and international

2 Decode telecommunications concepts and acronyms . . . MUX, Modem, Codec, E-Carrier/T-Carrier, X.25, Frame Relay, SMDS, DQDB, LAP-D, ISDN, ATM, AIN

3 Understand regulatory concepts, issues and rulings

4 Grasp the basic nature and function of telecommunications and data communications systems and networks

5 Identify how telecommunications technology is being used to develop and deliver new and innovative applications

6 Obtain comprehensive and unique documentation

7 Understand domestic and international standards and their significance

8 Discover the advantages of digital technology

9 Understand the components of a network—switches, transmission facilities, amplifiers and repeaters, premise equipment, signalling systems . . . and more . . .

10 Contrast and evaluate system, network and service offerings—current and future

11 Explore wireless/mobile communications alternatives

12 Prepare for the future of visual communications

A 400+ page manual with over 100 diagrams

On registration, all delegates will receive a set of documentation. The comprehensive seminar materials include a 400+ page highly narrative reference manual featuring:

- Over 100 graphical illustrations, models and diagrams, as well as
- A complete glossary of key telecommunications terms.

This documentation will not be available elsewhere, nor will it be sold separately. The manual will serve as a continuing reference source for you and your colleagues, both during and after the seminar.

Who should attend

- MIS/Data Processing professionals requiring an overview of communications fundamentals and trends
- Those new to telecommunications and seeking a firm foundation of knowledge
- Experienced professionals who need to update their knowledge of current technologies and gain an understanding of emerging system and network technologies and applications
- Those who need to increase their scope of knowledge relative to telecommunications technologies
- Those with telecommunications interests—regulators, educators, lawyers, economists, and financial planners
- Telecommunications industry professionals in the disciplines of marketing and sales, public relations and advertising
- Decision makers seeking a big picture perspective of voice, data and visual networks
- Manufacturers, distributors and carriers who wish to broaden their perspectives and sharpen their vision

"Superb instructors . . . the presentation was impeccable"

This **world class** seminar is led by expert speakers, internationally acclaimed for their highly informative, dynamic and entertaining approach to highly technical subjects. Thousands of people all over the world have attended LIDO seminars, here's a sample of what they thought:

"Content was perfectly suited for my needs . . . good combination of slides, diagrams and verbal explanation . . . excellent manual will be useful on the job. . . . excellent speakers were interesting and knowledgeable . . . thanks for a job well done!"
L. DeGagne, Office of the Auditor General, Ontario, Canada

"Excellent speakers who obviously knew their stuff . . . a pleasure listening to the examples and stories . . . all of the material was well covered"
C. Small, The Musicland Group

"Superb instructors . . . presentation was impeccable . . . would enjoy sitting through anything they lecture on!"
B. Quinn, *Teleconnect* magazine

"Extremely knowledgeable instructors . . . helpful in taking difficult terms and explaining them in a manner I could understand"
L. Mcentee, Beneficial Data Processing Corp.

"The manual and slides are excellent teaching support tools . . . method of presentation was relaxed but thorough . . . the speakers were knowledgeable on a wide variety of subjects and were always willing to answer tough questions"
M. Hausman-May, Mayo Clinic

"The instructors were clear and precise. The slides enhanced the presentation and the manual presented the facts in a straightforward manner . . . good sense of humour made the material come to life"
L. Chamberlain, Microsoft Corporation

"The best instructors I have ever come across . . . thorough, articulate, and had quick answers to all questions . . . presented information in a very professional manner"
A. Salamance, University of California

"Instructors were excellent in getting points over, answering questions, and explanations . . . best class I've had since I've been in the business"
C. Pride, US Supreme Court

"Very energetic . . . explained every chapter in plain English . . . easy to understand . . . explained complex subjects with real-life situations"
D. Smith-Mrozek, Mutual of New York

Are you up-to-date with telecommunications applications and technologies?

REGISTRATION FORM

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Please register the following delegate(s) for:

- ☐ **All three days**
- ☐ **Voice Communications: Systems and Networks** (Day 1)
- ☐ **Data Communications: Systems and Networks** (Day 2)
- ☐ **Emerging Technologies** (Day 3)

Indicate Venue: ☐ Canberra ☐ Sydney ☐ Brisbane* ☐ Auckland
* Note: Days 1 and 2 only.

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This intensive seminar has been developed specifically to provide you with a practical, easy to understand overview of telecommunications—the industry, the technologies and the applications. Presented by internationally acclaimed experts in the field, this lively, fast-paced seminar addresses technology basics, standards, network architectures, regulatory issues and driving applications.

Attend only those days which suit your needs

This unique event offers you the flexibility to combine any of the seminar days to create an information package which suits your needs and interests. Or, you can attend the full three day presentation to gain a complete briefing which spans the full spectrum of voice, data, image and video systems and networks, both wired and wireless networks, as well as the applications which are driving the developments and deployment of emerging technologies.

This is an **essential** briefing for all corporate and government managers. Reserve your place **today!**

Customised in-house training

This seminar can be tailored to your specific requirements and held on your premises for exclusive in-house training. Having your training in-house can be cost effective and convenient, productive and timely—with guaranteed results. For more information please contact Yvette Sands in Australia on (02) 929 5366

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Registration Details

Prices:
Australia:
Attend all three days for: $1795.00
Any Two days for: $1295.00
Any Single day for: $795
New Zealand:
Attend all three days for: $1695 + GST
Any Two days for: $1195 + GST
Any Single day for: $695 + GST

Group Discount: A 10% discount applies if three or more delegates register at the same time from your organisation or department.

Payment: Please include a cheque with your registration made payable to I.I.R. Pty Ltd. Payment is required before the conference date. I.I.R. reserves the right to change the programme at any time.

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Registration Hot Lines:
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General Enquiries:
Tel (02) 929 5366. Fax (02) 959 4835

Dates and Venues:
Canberra: 2, 3, 4 March 1994; The Lakeside Hotel, London Circuit, Canberra, ACT 2600, Tel: (06) 247 6244, Fax: (06) 247 3679
Sydney: 7, 8, 9 March 1994; Hyatt Kingsgate, The Top of William Street, Kings Cross, NSW 2001, Tel: (02) 356 1234, Fax: (02) 356 4150
Brisbane: 10, 11 March 1994; Brisbane Hilton, 190 Elizabeth Street, Brisbane Qld 4000, Tel: (07) 231 3131, Fax: (07) 835 4960 (we regret that day three of this seminar is not available in Brisbane)
Auckland: 14, 15, 16 March 1994; Hyatt Hotel, Cnr Waterloo Quadrant and Princes Streets, Auckland, Tel: (09) 366 1234, Fax: (09) 303 2932

Cancellations: Should you be unable to attend, a substitute delegate is always welcome at no extra charge. Alternatively, we will make a full and prompt refund for cancellations received in writing (letter or facsimile) by two weeks prior to the conference. Documentation and a 50% refund will be sent for cancellations received in writing by one week prior. Regrettably, no refunds can be made for cancellations received less than one week prior to the conference.